A New Guinea Tree Rat.

In the absence of any account in available literature of an unusually large rat inhabiting country at the head of the River Aroa, in British New Guinea, the following descriptive notes concerning it are offered, on the presumption that they may add something to our knowledge of the rat, even though it should have been previously described:—

Dimensions of an adult male:-

		mm.
Length of head and body, following dorsal contour of sk	in	435
Ditto abdominal do.	•••	380
Length of tail	•••	365
,, of head to a line joining anterior roots of ears	•••	80
from tip of nose to anterior canthus of eye		4 I
" from posterior canthus of eye to the ear …	•••	36
" of ear	• • •	13
,, of forefoot	•••	4.0
" of hind foot	• • •	68
,, of whiskers	•••	130
Breadth of head between the ears	•••	34
" of body across the loins		178
,, ,, ,, chest	•••	100
Skull, length	•••	77
" breadth across zygomas	• • •	42

Head short, broad, and convex; ears naked, and so short as to be nearly hidden by the fur; whiskers very strong and long, reaching to the middle of the arm; body extremely broad; legs short and powerful; tail shorter than body and head, practically naked; its scales very broad and short, measuring near its base 9 to the centimetre in length and 4 in breadth: imbricated longitudinally but not transversely, so that they run together in oblique rows: corrugated on the apical half of the dry skin, smooth on the basal. Nostrils and feet murine, 5th digit of hind foot of normal length.

Hair cylindrical. Fur, 30mm long on the back, dense, soft at base; on body and outer side of limbs beset with numerous long (58mm.) and harsher hairs.

Hair of the head radiating from a spot over the centre of the nasals; of the tail—scanty, short and feeble.

Colour: On upper surface, grizzled brownish gray, deepening to nearly black in lines and blotches on the middle of the back, shoulders, nape, and about the head, where a line runs obscurely above the eyes to meet its fellow on the snout in front of the radiating point. Base of the dorsal fur pale gray with some tips whitish, others black and brown, the mixture, aided by the long hairs, which are pale at the base, dark in the middle, and nearly white at the tip, producing the grizzled appearance Cheeks, limbs, sides of rump, and scrotal region rufous brown; fore and hind feet blackish brown. Below, from upper throat to penis, and on inner surface of limbs, isabelline. Incisors: Upper, pale brown; lower, isabelline. Tail, above and below, dark brown on basal moiety, paler on apical. Whiskers, black.

Skull: Premaxillaries deep (14mm.); posterior edge of infraorbital fissure straight, without projection anterosuperiorily; supraorbital edge at junction of zygoma and frontal with a strong process posteriorily, at junction of sqamosal and frontal elevated into a pronounced ridge; parietal ridges moderate, frontals conspicuously tumid anteriorily; incisive foramina as long as the molar series, not nearly reaching the teeth, wide (disclosing a broad vomer) with a contraction near the anterior end; auditory bulke thickly walled, its orifice directed unusually backward.

Teeth: Upper molars in a series, 16mm. long; first molars 5mm. broad, and in breadth six-fifths of that of the intermediate palatal space; third, as long as the second but narrower, width 3mm.; first molars with a central row of three horseshoe folds, two ear-shaped folds, on the inner, and two much smaller on the outer; the second has two central and two inner folds, like the first, but only one on its outer side; the third is like the second, but has no fold on its outer side; these folds form regular longitudinal rows, slightly divergent posteriorily. Lower molars in a series, equally broad fore and aft, the enamel folds on each form double loops, three on the first tooth (the foremost very small) and two on each of the second and third; the bases of these loops are directed forward, those of the upper teeth backward. Altogether, the teeth, in breadth and armature, have no little resemblance to those of Mastacomys. Incisors not grooved.

Habitat: The collector states that this rat is arboreal.

The structure of the teeth—approaching that of Mastacomys; features of the skull—reminding us of Uromys in an exaggerated form, the peculiar lepidosis of the tail; the huge size and massiveness of the body; the radiation of the hair of the head—reminding us of the tree kangaroos, and thus significant of strictly arboreal life: these form an assemblage of characters which seems to confer generic rank.

But, though this rat came to me with an assurance that other specimens obtained were so disposed of that it could not have been named, I feel hardly justified in running the risk of perpetrating a synonym, otherwise I should propose for it the name Dendrosminthus aroaensis.